

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER 86-11

UNION OIL COMPANY OF CALIFORNIA,
SAN FRANCISCO REFINERY,
CONTRA COSTA COUNTY,

AMENDING ORDER NO. 86-8, A CEASE AND DESIST ORDER FOR VIOLATIONS
AND THREATENED VIOLATIONS OF WASTE DISCHARGE REQUIREMENTS, BOARD
ORDER NO. 85-29.

The California Regional Water Quality Control Board, San
Francisco Bay Region, (hereinafter Board) finds that:

1. On November 19, 1974, the Board adopted Order No. 74-152 (NPDES Permit No. CA0005053) prescribing waste discharge requirements to Union Oil Company of California, San Francisco Refinery (hereinafter discharger). The discharger discharges waste from its wastewater treatment facilities in Rodeo to San Pablo Bay, a water of the State.
2. On February 19, 1980, the Board adopted Order No. 80-5 reissuing the discharger's waste discharge requirements and rescinding Board Order No. 74-152.
3. On February 20, 1985, the Board adopted Order No. 85-29 reissuing the discharger's waste discharge requirements and rescinding Board Order No. 80-5.
4. On February 19, 1986, the Board adopted Order No. 86-8 ordering the discharger to cease and desist from discharging waste or threatening to discharge waste contrary to the requirements of Order No. 85-29.
5. The requirements of Order No. 74-152 provided in part, as follows:

"...

C. DISCHARGE PROHIBITIONS

1. "There shall be no bypass of untreated waste to waters of the State".

...

D. PROVISIONS

...

6. "This Order includes items 1, 3, 5, and 7 of the attached "Reporting Requirements," dated August 8, 1973."

Reporting Requirements

1. "The discharger shall file with the Board technical reports on self-monitoring work performed according to the detailed specifications contained in any Monitoring and Reporting Program as directed by the Executive Officer".

...

Self-Monitoring Program

Part A, F.2 - "Bypass reporting shall be an integral part of regular monitoring program reporting, and a report on bypassing of untreated waste or bypassing of any treatment unit(s) shall be made which will include cause, time and date, duration and estimated volume of waste bypassed, method used in estimating volume, and persons notified, for planned and/or unplanned bypass..."

7. "This order includes items 1, 2, 4, 5, 6, 7, 8, 9, and 11 of the attached "Standard Provisions," dated August 8, 1973..."

Standard Provision

...

6. "The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed by the discharger to achieve compliance with the waste discharge requirements."

...

6. The requirements of Order No. 80-5 provided in part, as follows:

A. Effluent Limitations

1. The discharge of Waste 002 containing constituents in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>30-day average</u>	<u>Maximum Daily</u>
...
Oil and Grease	lbs/day	374	713
	kg/day	170	323
	mg/l	---	15
...
Settleable Solids	ml/l-hr	0.1	0.5
...

3. Neither the discharge of Waste 001 nor Waste 003 shall contain a TOC concentration above intake levels in excess of 5 mg/l.

4. Neither the discharge of Waste 001 nor the combined discharge of Waste 002 and 003 shall have a pH of less than 6.5 nor greater than 8.5.

...

8. In the discharge from each of the septic tanks tributary to Waste 002, and in the combined flow from those septic tanks, the total coliform bacteria for a median of five consecutive effluent samples shall not exceed 240 per 100 milliliters. Any single sample shall not exceed a most probable number (MPN) of 10,000 total coliform bacteria when verified by a repeat sample taken within 48 hours.

...

C. DISCHARGE PROHIBITIONS

1. "There shall be no bypass of untreated wastewater to waters of the State".

...

D. PROVISIONS

...

4. "There shall be no bypass of untreated wastewater to waters of the State".

...

6. "This order includes the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977 except for items A.5, B.1., and B.5."

STANDARD PROVISIONS

...

A.6 "The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed by the discharger to achieve compliance with the waste discharge requirements".

...

A.13 "Any diversion from or bypass of facilities necessary to maintain compliance with the terms and conditions of this order is prohibited, except a) where unavoidable to prevent loss of life or severe property damage, or b) where excessive storm drainage

or runoff would damage any facilities necessary for compliance...

Details of notification procedures, required written reports and accelerated monitoring are contained in the Self-Monitoring Program."

...

SELF-MONITORING PROGRAM

Part A, F.2- "Bypass reporting shall be an integral part of regular monitoring program reporting, and a report on bypassing of untreated waste or bypassing of any treatment unit(s) shall be made which will include cause, time, and date, duration and estimated volume of waste bypassed, method used in estimating volume, and persons notified, for planned and/or unplanned bypass..."

7. The requirements of Order No. 85-29 provide in part, as follows:

"A. EFFLUENT LIMITATIONS

1. The discharge of Waste 002 containing constituents in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>30-day average</u>	<u>Maximum Daily</u>
BOD(5-day @ 20_C)	lbs/day	966	1900
	kg/day	438	862
TSS	lbs/day	850	1330
	kg/day	385	602
...
Phenolic Compounds	lbs/day	6.03	14.1
	kg/day	2.74	6.41
...
Settleable Solids	ml/lhr	0.1	0.2
...

3. Neither the discharge of Waste 001 nor Waste 003 shall contain a TOC concentration above intake levels in excess of 5 mg/l.
4. Neither the discharge of Waste 001 nor Waste 004 shall have a pH of less than 6.5 nor greater than 8.5.
5. Neither the discharge of Waste 001 nor Waste 004 shall have a chlorine residual in excess of 0.0 mg/l.

6. In representative samples of the effluent, the discharge of Waste 004 shall meet the following limit of quality:

TOXICITY:

The survival of three spine stickleback (*Gasterosteus aculeatus*) test fishes in 96 hour

bioassays of the effluent shall achieve a median of 90 percent survival for three consecutive samples and a 90 percentile value of not less than 70 percent survival.

...

D. PROVISIONS

...

4. "The discharger shall comply with the attached self-monitoring program as adopted by the Board and as may be amended by the Board."

SELF-MONITORING PROGRAM

Part A, F.2- "Bypass reporting shall be an integral part of regular monitoring program reporting, and a report on bypassing of untreated waste or bypassing of any treatment unit(s) shall be made which will include cause, time and date, duration and estimated volume of waste bypassed, method used in estimating volume, and persons notified, for planned and/or unplanned bypass..."

...

9. "This Order includes all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977 except A.5, A.12, B.2, and B.5."

...

STANDARD PROVISIONS

...

- A.6- "The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed by the discharger to achieve compliance with the waste discharge requirements."

...

- A.13- "Any diversion from or bypass of facilities necessary to maintain compliance with the terms

and conditions of this order is prohibited, except a) where unavoidable to prevent loss of life or severe property damage, or b) where excessive storm drainage or runoff would damage any facilities necessary for compliance...".

8. On July 21, 1982, the Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). This Basin Plan includes discharge prohibitions intended to protect the beneficial uses of all waters of the Region. Prohibition No. 6 reads as follows:

"It shall be prohibited to discharge all conservative toxic and deleterious substances, above those levels which can be achieved by a program acceptable to the Board, to waters of the Basin."

9. On May 16, 1974, the State Water Resources Control Board (SWRCB) adopted the "Water Quality Control Policy for the Enclosed Bays and Estuaries of California. This policy includes discharge prohibitions intended to prevent water quality degradation and to protect the beneficial uses of waters of enclosed bays and estuaries. Prohibition No. 7 reads as follows:

"The discharge or by-passing of untreated waste to bays and estuaries shall be prohibited."

10. On April 2, 1985, Regional Board staff inspected the discharger's wastewater treatment facilities and found that a portion of the influent wastewater to the biopant is bypassed (routed around) the biopant. These bypasses are in violation of waste discharge requirements and discharge prohibitions of the RWQCB Basin Plan and the SWRCB Water Quality Control Policy for the Enclosed Bays and Estuaries of California. Additionally, these bypasses have not been reported to this office as required by the discharger's NPDES permit.
11. Since that inspection in April of last year, the discharger has admitted that bypassing of their biopant facilities occur more often than reported; the discharger now estimates that during rainy weather they bypass on approximately 90 percent of all days on which they sample their wastewater for compliance purposes. In addition, they have also estimated that they bypass on a year-round basis approximately 75 percent of the days in which they sample their wastewater.
12. The bypasses of wastewater at an oil refinery are particularly significant because there are many toxic pollutants that will be discharged from an oil refinery's wastewater treatment plant when the discharge is not fully treated. In addition, the effluent limits that have been included in NPDES permits for all refineries are based on

the assumption that full treatment including biological treatment is provided for all wastewaters.

13. The discharger has recently been able to achieve intermittent compliance with the bypass prohibition of its NPDES permit by installing a slide-gate valve upstream of the bioplant on November 7, 1985. Since that date, the discharger has reported a total of 10 bypasses. Some of these bypasses have occurred during days on which only a moderate amount of rain fell at the refinery.
14. Self-monitoring reports, staff investigations and reports, written and oral testimony from the discharger and public document that the discharger has violated the discharge prohibitions and provisions requirements cited above in findings 4, 5, 6, 7, and 8 during the period of July 1977 to November 1985.
15. Self-monitoring reports document that the discharger has violated the effluent requirements cited above in findings 5 and 6 during the period of January 1983 to January 1986. In the past, these effluent violations could have been prevented if the discharger had provided either additional stormwater basin capacity and/or additional treatment plant capacity.
16. The discharger threatens to continue to violate waste discharge requirements (i.e. discharge prohibitions, provisions, and effluent limitations) and discharge prohibitions of the RWQCB Basin Plan and the SWRCB Bay and Estuaries Policy unless additional capacity to either treatment plant and/or stormwater basins is provided.
17. This action is an order to enforce waste discharge requirements previously adopted by the Board. This action is therefore categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15121 of the Resources Agency Guidelines.
18. On Wednesday March 5, 1986, in the Auditorium Room, Metro Center Building, 101 8th Street, Oakland, after due notice to the discharger and all other affected persons the Board conducted a public hearing at which the discharger and other interested persons appeared and evidence was received and considered concerning the violations of discharge requirements and actions taken and proposed by the discharger and other affected persons to assure compliance with the NPDES permits.

IT IS HEREBY ORDERED, that Order No. 86-8 is amended as follows:

1. Comply with the following tasks:

- | <u>TASK</u> | <u>COMPLIANCE DATE</u> |
|--|------------------------|
| a. Submit a technical report that describes actual treatment capacity for all treatment units of wastewater treatment facility. (Including maximum wet weather capacity). | April 15, 1986 |
| b. Submit a technical report that summarizes alternatives and associated costs for necessary wastewater treatment system modification to prevent future violations of NPDES permit. (Including detailed information on the relative costs of preventing bypasses for various rainfall events and frequencies). | May 15, 1986 |
| c. Submit a time schedule for implementation of the selected alternative. The time schedule should contain completion dates for the following subtasks:

1. Complete design
2. Complete contract documents
3. Advertise for constructions bids
4. Award construction contract
5. Complete construction | May 1, 1987 |
| d. A status report shall be submitted to the Executive Officer no later than one week after the completion date of each of the subtasks in 1.c. above. | |
| e. Complete construction of selected alternative. | July 1, 1988 |
2. Comply with revised self-monitoring reports within 10 days after adoption of this order.

The above technical reports are requested pursuant to Water Code section 13267 of the California Water Code.

The discharger shall submit to the Board on or before each compliance report date, a report detailing his compliance or non-compliance with the specific scheduled task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the discharger will be compliance. The discharger shall notified the Board by letter when he has returned to compliance with the time schedule.

The Executive Office is instructed to bring this Order back to

the Board for inclusion of a final compliance date for completion of facilities after evaluation of the June 15, 1986, submittal. If the Executive Officer finds that the discharger has failed to comply with provisions of this Order, he is authorized, after approval of the Board Chairman, to request the Attorney General to take appropriate enforcement action against the discharger, including injunction and civil remedies, if appropriate.

If the Executive Officer determines that the provisions of this order are violated and does not refer the matter to the Attorney General, he is instructed to report to the Board the reason that the discharger has been unable to comply with the provisions of this Order.

I, Roger B. James, do hereby certify the foregoing is a full, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on March 5, 1986.

A handwritten signature in cursive script, reading "Roger B. James", is written over a horizontal dashed line.

ROGER B. JAMES
EXECUTIVE OFFICER